

WILDWOOD MOBILE HOME PARK (PWS 7300059) SOURCE WATER ASSESSMENT OPERATOR FINAL REPORT

April 25, 2003



State of Idaho Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for Wildwood Mobile Home Park, Dubois, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The Wildwood Mobile Home Park (PWS #7300059) drinking water system consists of one well. The well was constructed in 1979 and is the main water supply serving the system's approximately 44 people through 1 connection.

Final susceptibility scores are derived from equally weighting system construction scores, hydrologic sensitivity scores, and potential contaminant/land use scores. Therefore, a low rating in one or two categories coupled with a higher rating in other categories results in a final rating of low, moderate, or high susceptibility. With the potential contaminants associated with most urban and heavily agricultural areas, the best score a well can get is moderate. Potential contaminants are divided into four categories, inorganic contaminants (IOCs, i.e. nitrates, arsenic), volatile organic contaminants (VOCs, i.e. petroleum products), synthetic organic contaminants (SOCs, i.e. pesticides), and microbial contaminants (i.e. bacteria). As different wells can be subject to various contamination settings, separate scores are given for each type of contaminant.

In terms of total susceptibility, the Wildwood Mobile Home Park well rated moderate for IOCs, VOCs, SOCs, and automatically high for microbials. System construction rated high and hydrologic sensitivity rated moderate for the well. Land use scores were moderate for IOCs, VOCs, SOCs, and low for microbials. The largest influences upon overall scores were the automatically high microbial rating due to repeat detections of total coliform in the well (April 1998, September 1999).

No SOCs or VOCs have ever been detected in the tested water. The IOCs barium, nitrate, and arsenic have been detected in the well. Each of the IOCs have been detected in concentrations significantly below their maximum contaminant levels (MCLs) except for arsenic which was detected in concentrations as high as 8 parts per billion (ppb). In 2001 the EPA lowered arsenic's MCL from 50 ppb to 10 ppb, however public water systems have until 2006 to meet the new standard. EPA requires reporting to the Consumer Confidence Report (CCR) if concentrations of detected compounds are greater than half their MCL. Further information and health side-effects can be researched at <http://www.epa.gov/safewater/ccr1.html>.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources. If the system should need to expand in the future, new well sites should be located in areas with as few potential sources of contamination as possible, and the site should be reserved and protected for this specific use.

For the Wildwood Mobile Home Park, drinking water protection activities should first focus on correcting any deficiencies outlined in the sanitary survey (an inspection conducted every five years with the purpose of determining the physical condition of a water system’s components and its capacity). Actions should be taken to keep a 50-foot radius circle around the wellhead clear of potential contaminants. Any contaminant spills within the delineation should be carefully monitored and dealt with. As much of the designated assessment areas are outside the direct jurisdiction of Wildwood Mobile Home Park, collaboration and partnerships with state and local agencies should be established and are critical to success.

Because the arsenic in the well has been detected in concentrations higher than one-half the revised MCL of 10 ppb, the Wildwood Mobile Home Park may need to consider implementing engineering controls to monitor and maintain or reduce the level of this contaminant in the water system. EPA plans to provide up to \$20 million over the next two years for research and development of more cost-effective technologies to help small systems meet the new MCL.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A strong public education program should be a primary focus of any drinking water protection plan as the delineation contains some urban and residential land uses. Public education topics could include proper lawn and garden care practices, household hazardous waste disposal methods, proper care and maintenance of septic systems, and the importance of water conservation to name but a few. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the EPA. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the local Soil and Water Conservation District, and the Natural Resources Conservation Service.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Idaho Falls Regional Office of the DEQ or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR WILDWOOD MOBILE HOME PARK, SALMON, IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this assessment means.** Maps showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are included. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is included.

Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a drinking water protection program should be determined by the local community based on its own needs and limitations. Wellhead or drinking water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

The Wildwood Mobile Home Park (PWS #7300059) drinking water system is located in Lemhi County, Idaho (Figure 1). The system utilizes one well which was constructed in 1979 and is the main water supply serving the system's approximately 44 people through 1 connection.

No SOCs or VOCs have ever been detected in the tested water. The IOCs barium, nitrate, and arsenic have been detected in the well. Each of the IOCs have been detected in concentrations significantly below their MCLs except for arsenic which was detected in concentrations as high as 8 ppb. In 2001 the EPA lowered arsenic's MCL from 50 ppb to 10 ppb, however public water systems have until 2006 to meet the new standard. EPA requires reporting to the CCR if concentrations of detected compounds are greater than half their MCL. Further information and health side-effects can be researched at <http://www.epa.gov/safewater/ccr1.html>. Repeat detections of total coliform occurred in the well (April 1998, September 1999).

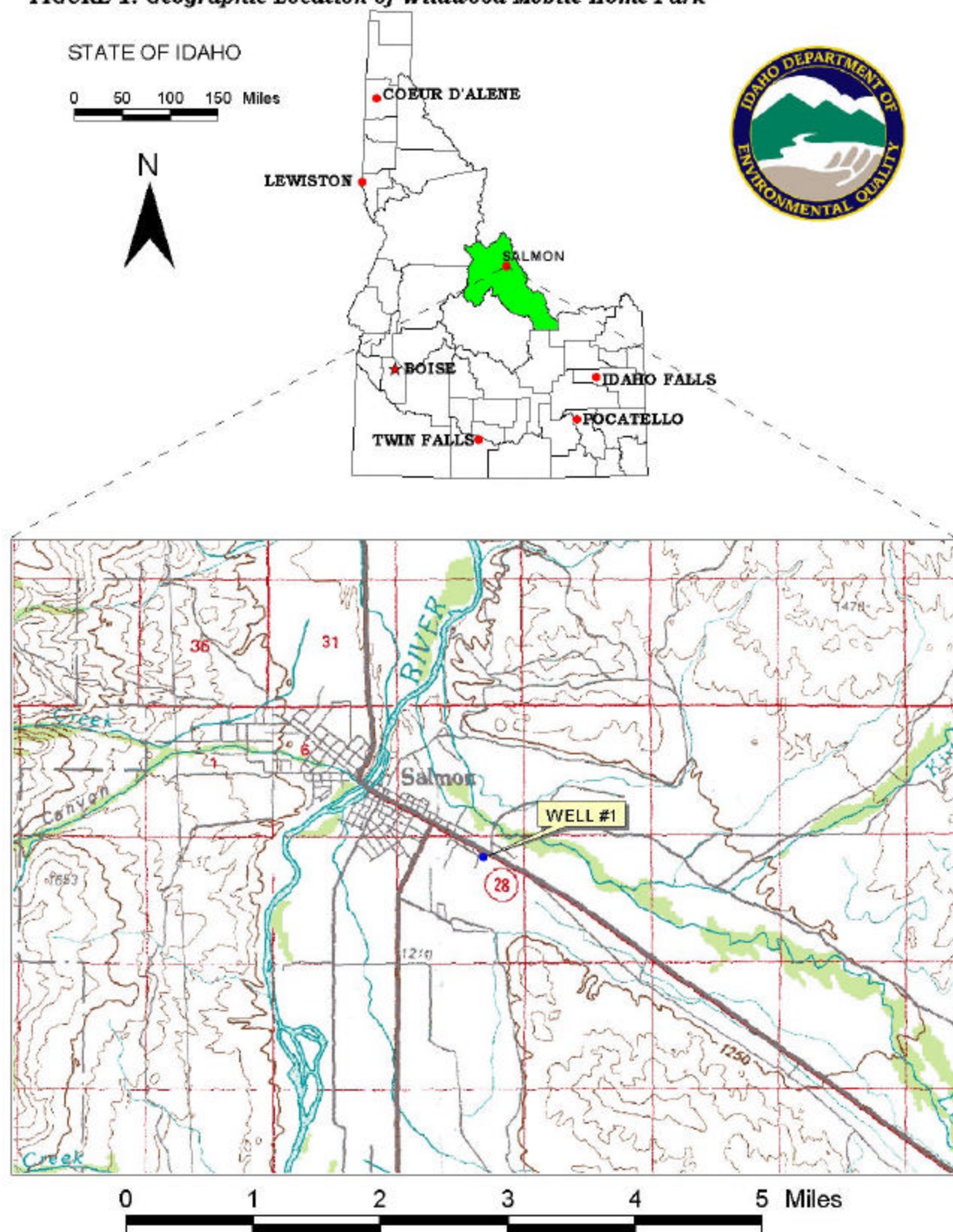
Defining the Zones of Contribution – Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time-of-travel (TOT) zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. Washington Group International (WGI) performed the delineation using a computer model approved by the EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) TOT for water associated with the Snake River Plain aquifer in the vicinity of the Wildwood Mobile Home Park. The computer model used site specific data, assimilated by WGI from a variety of sources including local area well logs, and hydrogeologic reports (detailed below).

Hydrogeologic Conceptual Model

The Upper Salmon River Basin occupies approximately 1,170 square miles in east-central Idaho. The basin is included in the Northern Rocky Mountain geomorphic province, which is characterized by high massive mountains and intermontane valleys with variably thick accumulations of sediment (Parlman, 1982, p. 4). The basin includes four hydrologic provinces: Lemhi Valley, Pahsimeroi Valley, Round Valley, and Upper Salmon River. The Round Valley and Upper Salmon River provinces are drained by the Salmon River, while the Lemhi and Pahsimeroi provinces are drained by the Lemhi and Pahsimeroi rivers, which are northwest flowing tributaries of the Salmon River. Surface water/ground water interactions in the basin's valleys are complex. However, upper river reaches generally recharge the valleys aquifers, while the lower river reaches receive the aquifers discharge (Parlman, 1982, p. 13).

FIGURE 1. Geographic Location of Wildwood Mobile Home Park



Upper Salmon River Hydrologic Province

The Upper Salmon River hydrologic province is a long, thin south-to-north trending basin located east of the Salmon River Mountains. Annual average precipitation in the city of Salmon is 9 inches (Donato, 1998, p.3). The Salmon River flows north and northeast along the axis of the province. The Lemhi and Pahsimeroi rivers are the major tributaries of the Salmon River contributing water drained from the Lemhi and Pahsimeroi hydrologic provinces. The valley fill is primarily Quaternary aged alluvium consisting of poorly sorted cobbles, gravel, sand, silt, and local clay lenses (Parlman, 1982, p. 8).

The valley-fill aquifer is recharged primarily through precipitation on the surrounding mountains. Seepage losses from surface water bodies and infiltration from irrigation, interaquifer flow, and septic tanks also recharge the aquifer (Parlman, 1982, p. 13). Probable mechanisms of aquifer discharge include seepage to river at the lower end of the basin and interaquifer flow. Estimates of hydraulic conductivity, based on analysis of specific capacity data from driller's logs using the method of Walton (1962, p. 12), range from 37 to 190 ft/day, with a geometric mean of 75 ft/day.

The refined method was applied to delineate capture zones for wells in the Lemhi Valley and Upper Salmon River hydrologic provinces using the analytic element model WhAEM2000 (Kraemer et al., 2000).

The delineated area for the Wildwood Mobile Home Park well is a southeast trending sector approximately 4 miles long which widens to approximately $\frac{3}{4}$ mile at its most distant point from the well. The actual data used in determining the source water assessment delineation area is available from DEQ upon request.

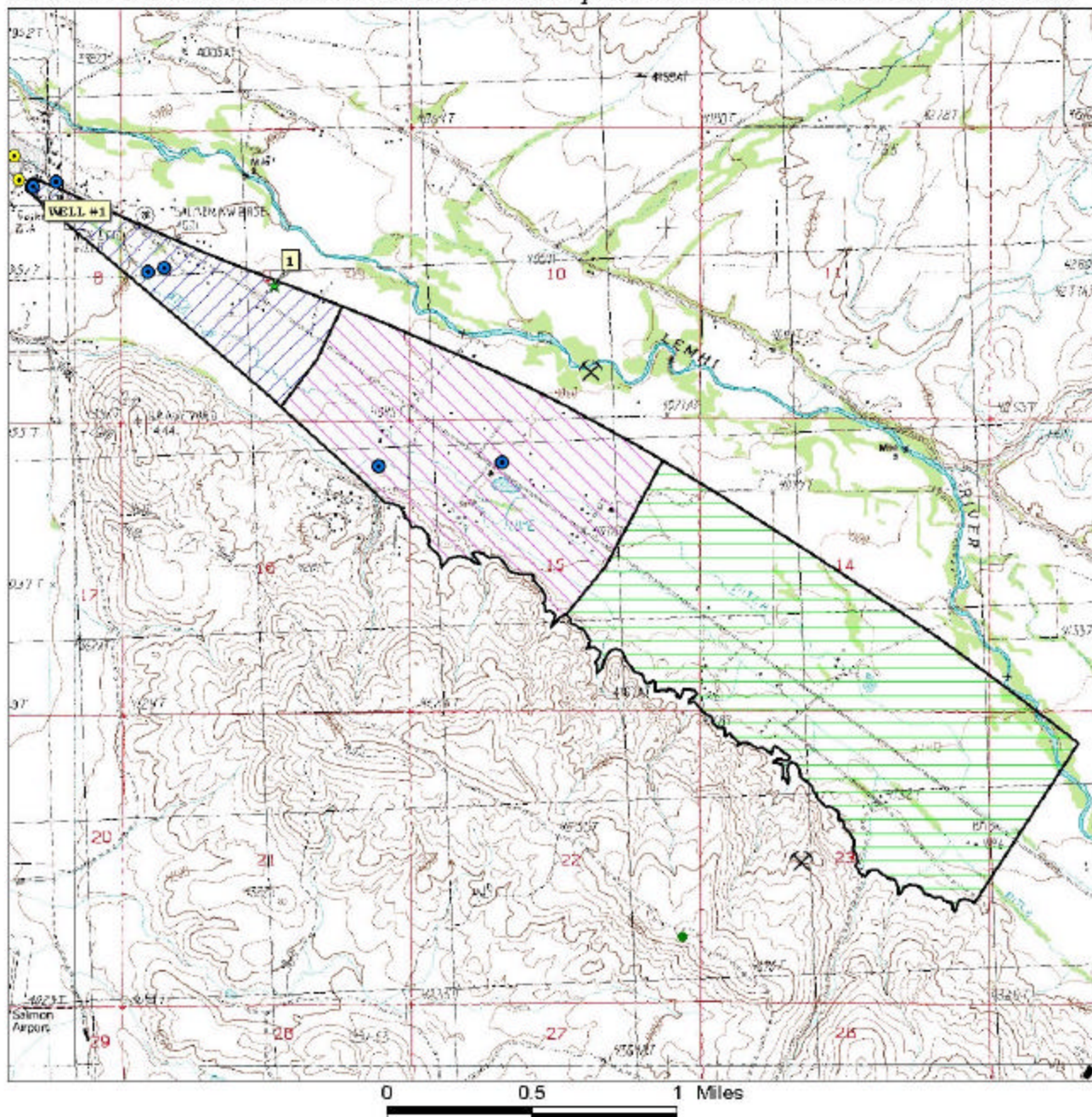
Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of groundwater contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

Land use within the area surrounding the Wildwood Mobile Home Park wells is urban in proximity to the well, and predominately agricultural throughout the remainder of the delineation.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, including educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

FIGURE 2. Wildwood Mobile Home Park Delineation Map and Potential Contaminant Source Locations



PWS# 7300059
WELL #1

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted in May and June 2002. The first phase involved identifying and documenting potential contaminant sources within the Wildwood Mobile Home Park source water assessment area (Figure 2) through the use of computer databases and Geographic Information System (GIS) maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator to identify and add any additional potential sources in the delineated areas.

The delineated source water area for the well (Figure 2, Table 1) has its potential contaminants outlined below. Sources include a dairy, Highway 28, and the Lemhi River.

Table 1. Wildwood Mobile Home Park, Well #1, Potential Contaminant Inventory

| SITE | Source Description ¹ | TOT ² ZONE | Source of Information | Potential Contaminants ³ |
|------|---------------------------------|-----------------------|-----------------------|-------------------------------------|
| 1 | Dairy (<= 200 cows) | 0-3 YR | Database Search | IOC, microbials |
| | Highway 28 | 0-10 YR | GIS Map | IOC, VOC, SOC, Microbials |
| | Lemhi River | 6-10 YR | GIS Map | IOC, VOC, SOC |

² TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

³ IOC = inorganic chemical, SOC = synthetic organic chemical, VOC = volatile organic chemical

Section 3. Susceptibility Analyses

Each well's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. Attachment A contains the susceptibility analysis worksheets. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

The hydrologic sensitivity of a well is dependent upon four factors: the surface soil composition, the material in the vadose zone (between the land surface and the water table), the depth to first ground water, and the presence of a 50-foot thick fine-grained zone (aquitar) above the producing zone of the well. Slowly draining soils such as silt and clay typically are more protective of ground water than coarse-grained soils such as sand and gravel. Similarly, fine-grained sediments in the subsurface and a water depth of more than 300 feet protect the ground water from contamination.

The Wildwood Mobile Home Park well rated moderate for hydrologic sensitivity. The Natural Resource Conservation Service characterized areas soils as poorly to moderately drained, positively affecting the score. In addition, the vadose zone is composed of a predominantly impermeable clay unit. As the well is only 38 feet deep, the depth to first water is less than 300 feet below ground surface (bgs), and an aquitar is not present above the producing zone of the well.

Well Construction

Well construction directly affects the ability of the well to protect the aquifer from contaminants. System construction scores are reduced when information shows that potential contaminants will have a more difficult time reaching the intake of the well. Lower scores imply a system is less vulnerable to contamination. For example, if the well casing and annular seal both extend into a low permeability unit, then the possibility of contamination is reduced and the system construction score goes down. If the highest production interval is more than 100 feet below the water table, then the system is considered to have better buffering capacity. If the wellhead and surface seal are maintained to standards, as outlined in sanitary surveys, then contamination down the well bore is less likely. If the well is protected from surface flooding and is outside the 100-year floodplain, then contamination from surface events is reduced.

Wildwood Mobile Home Park's well rated high for system construction. According to the well log, an 8-inch casing 0.25 inches thick was seated 31 feet bgs into brown clay and perforations exist between 20 feet bgs and 30 feet bgs. A bentonite annular seal was placed 19 feet bgs into coarse gravel. An open hole extends below the bottom of the casing at 31 feet bgs to 38 feet bgs. Static water depth was measured at 8 feet bgs. The well is located outside of the 100 year floodplain and the casing is seated into a low permeability unit. However the high score was derived by the highest production of water coming from less than 100 feet below static water depths, an annular seal which is not seated into a low permeability unit, and a wellhead which does not have a proper vent (1996 Sanitary Survey).

Current PWS well construction standards are more stringent than when the wells were constructed. The Idaho Department of Water Resources *Well Construction Standards Rules* (1993) require all PWSs to follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the *Recommended Standards for Water Works* (1997) during construction. Some of the regulations deal with screening requirements, aquifer pump tests, use of a downturned casing vent, and thickness of casing. Table 1 of the *Recommended Standards for Water Works* (1997) lists the required steel casing thickness for various diameter wells. Eight-inch diameter wells require a casing thickness of 0.322 inches. Because the well's construction does not meet all current standards, the well was assessed an additional system construction point

Potential Contaminant Source and Land Use

The well rated moderate for IOCs, VOCs, SOCs, and low for microbials. The high percentage of irrigated agricultural land within the delineation contributed the highest amount to the ratings. Also factoring into the scoring was Highway 28 and a dairy.

Final Susceptibility Ranking

A detection above a drinking water standard MCL, any detection of a VOC or SOC, or a detection of total coliform bacteria or fecal coliform bacteria at the wellhead will automatically give a high susceptibility rating to a well despite the land use of the area because a pathway for contamination already exists. Additionally, potential contaminant sources within 50 feet of a wellhead will automatically lead to a high susceptibility rating.

In this case Well #1 rated automatically high due to detections of total coliform in the well (April 1998, September 1995). Hydrologic sensitivity and system construction scores are heavily weighted in the final scores. Having multiple potential contaminant sources in the 0 to 3-year time of travel zone (Zone 1B) contribute greatly to the overall ranking.

Table 2. Summary of Wildwood Mobile Home Park Susceptibility Evaluation

| Well | Susceptibility Scores ¹ | | | | | | | | | |
|---------|------------------------------------|-----------------------|-----|-----|------------|---------------------|------------------------------|-----|-----|------------|
| | Hydrologic Sensitivity | Contaminant Inventory | | | | System Construction | Final Susceptibility Ranking | | | |
| | | IOC | VOC | SOC | Microbials | | IOC | VOC | SOC | Microbials |
| Well #1 | M | M | M | M | L | H | M | M | M | H* |

¹H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility,

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

H*= automatically high rating due to detections of total coliform in the well (April 1998, September 1995)

Susceptibility Summary

In terms of total susceptibility, the Wildwood Mobile Home Park well rated moderate for IOCs, VOCs, SOCs, and automatically high for microbials. System construction rated high and hydrologic sensitivity rated moderate for the well. Land use scores were moderate for IOCs, VOCs, SOCs, and low for microbials. The largest influences upon overall scores were the automatically high microbial rating due to detections of total coliform in the well (April 1998, September 1999).

No SOCs or VOCs have ever been detected in the tested water. The IOCs barium, nitrate, and arsenic have been detected in the well. Each of the IOCs have been detected in concentrations significantly below their MCLs except for arsenic which was detected in concentrations as high as 8 ppb. In 2001 the EPA lowered arsenic's MCL from 50 ppb to 10 ppb, however public water systems have until 2006 to meet the new standard. EPA requires reporting to the CCR if concentrations of detected compounds are greater than half their MCL. Further information and health side-effects can be researched at <http://www.epa.gov/safewater/ccr1.html>. Repeat detections of total coliform occurred in the well (April 1998, September 1999).

Section 4. Options for Drinking Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective drinking water protection program is tailored to the particular local drinking water protection area. A community with a fully developed drinking water protection program will incorporate many strategies. For Wildwood Mobile Home Park, drinking water protection activities should first focus on correcting any deficiencies outlined in the sanitary survey. Actions should be taken to keep a 50-foot radius circle clear around the wellheads. Any spills within the delineation should be carefully monitored and dealt with. As much of the designated protection area is outside the direct jurisdiction Wildwood Mobile Home Park, making collaboration and partnerships with state and local agencies and industry groups are critical to the success of drinking water protection. The well should maintain sanitary standards regarding wellhead protection.

Because the arsenic in the well has been detected in concentrations higher than one-half the revised MCL of 10 ppb, the Wildwood Mobile Home Park may need to consider implementing engineering controls to monitor and maintain or reduce the level of this contaminant in the water system. EPA plans to provide up to \$20 million over the next two years for research and development of more cost-effective technologies to help small systems meet the new MCL.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A public education program should be a primary focus of any drinking water protection plan as the delineation is near residential land uses areas. Public education topics could include proper household hazardous waste disposal methods, proper care and maintenance of septic systems, and the importance of water conservation to name but a few. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the EPA.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Idaho Falls Regional Office of the DEQ or the Idaho Rural Water Association.

Assistance

Public water suppliers and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Idaho Falls Regional DEQ Office (208) 528-2650

State DEQ Office (208) 373-0502

Website: <http://www.deq.state.id.us>

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper (mlharper@idahoruralwater.com), Idaho Rural Water Association, at 1-208-343-7001 for assistance with drinking water protection (formerly wellhead protection) strategies.

POTENTIAL CONTAMINANT INVENTORY

LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund, is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100-year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

References Cited

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Attachment A

Wildwood Mobile Home Park Susceptibility Analysis Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.375)

Final Susceptibility Scoring:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- ≥ 13 High Susceptibility

1. System Construction

SCORE

| | | |
|---|------------|------|
| Drill Date | 05/03/1979 | |
| Driller Log Available | YES | |
| Sanitary Survey (if yes, indicate date of last survey) | YES | 1996 |
| Well meets IDWR construction standards | NO | 1 |
| Wellhead and surface seal maintained | NO | 1 |
| Casing and annular seal extend to low permeability unit | NO | 2 |
| Highest production 100 feet below static water level | NO | 1 |
| Well located outside the 100 year flood plain | YES | 0 |

Total System Construction Score 5

2. Hydrologic Sensitivity

| | | |
|---|-----|---|
| Soils are poorly to moderately drained | YES | 0 |
| Vadose zone composed of gravel, fractured rock or unknown | NO | 0 |
| Depth to first water > 300 feet | NO | 1 |
| Aquitard present with > 50 feet cumulative thickness | NO | 2 |

Total Hydrologic Score 3

3. Potential Contaminant / Land Use - ZONE 1A

| IOC Score | VOC Score | SOC Score | Microbial Score |
|-----------|-----------|-----------|-----------------|
|-----------|-----------|-----------|-----------------|

| | | | | | |
|---|---------------------|----|----|----|-----|
| Land Use Zone 1A | DRYLAND AGRICULTURE | 1 | 1 | 1 | 1 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A | YES | NO | NO | NO | YES |
| Total Potential Contaminant Source/Land Use Score - Zone 1A | | 1 | 1 | 1 | 1 |

Potential Contaminant / Land Use - ZONE 1B

| | | | | | |
|--|-----|---|---|---|---|
| Contaminant sources present (Number of Sources) | YES | 2 | 1 | 1 | 2 |
| (Score = # Sources X 2) 8 Points Maximum | | 4 | 2 | 2 | 4 |
| Sources of Class II or III leacheable contaminants or | YES | 3 | 1 | 1 | |
| 4 Points Maximum | | 3 | 1 | 1 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B 25 to 50% Irrigated Agricultural Land | | 2 | 2 | 2 | 2 |

Total Potential Contaminant Source / Land Use Score - Zone 1B 9 5 5 6

Potential Contaminant / Land Use - ZONE II

| | | | | | |
|---|-----|---|---|---|--|
| Contaminant Sources Present | YES | 2 | 2 | 2 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 1 | 1 | |
| Land Use Zone II Greater Than 50% Irrigated Agricultural Land | | 2 | 2 | 2 | |

Potential Contaminant Source / Land Use Score - Zone II 5 5 5 0

Potential Contaminant / Land Use - ZONE III

| | | | | | |
|--|-----|---|---|---|--|
| Contaminant Source Present | YES | 1 | 1 | 1 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 1 | 1 | |
| Is there irrigated agricultural lands that occupy > 50% of | YES | 1 | 1 | 1 | |

Total Potential Contaminant Source / Land Use Score - Zone III 3 3 3 0

Cumulative Potential Contaminant / Land Use Score 18 14 14 7

4. Final Susceptibility Source Score

12 11 11 11

5. Final Well Ranking

Moderate Moderate Moderate High